REMARKS / ARGUMENTS

Reconsideration of the present application, as amended, is respectfully requested.

The April 6, 2004 Final Office Action and the Examiner's comments have been carefully considered. In response, claims 1, 10, 20 and 22 are amended for clarification purposes and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

REJECTIONS UNDER 35 USC 112

In the Office Action, claims 1-22 are rejected under the first paragraph of 35 U.S.C. §112 as failing to comply with the enablement requirement. In response, it is respectfully submitted that the feature of the generation of the measurement graphics being enabled "without activation of user interface constructs" is enabled by the specification when the phrase "user interface constructs" is properly interpreted in light of the specification.

The invention enables the generation of various measurement graphics based solely on the actual interaction of a mouse. Each click or pressing of a mouse button causes certain predefined actions to occur relating to a graphic so that by varying the number of clicks of the mouse on the medical image and movement of the mouse, different graphics can be generated without selection on a menu, toolbar, control panel or other user interface construct of the specific type of graphic to be generated.

Thus, there is a difference in the interpretation of a "user interface" and a "user interface construct" in the application. A "user interface" constitutes a device which enables a user to direct and control the program to perform certain functions and such a user interface is used in the invention, namely, a mouse. However, a "user interface construct" is a menu, toolbar or control panel displayed on the screen which is activated by a user interface, e.g., by pointing the cursor of the mouse to a selection on the menu, toolbar or control panel.

Applying the above interpretations, in the invention, the generation of the measurement graphics is enabled without activation of "user interface constructs" in that menus, toolbars

and control panels are not used but rather, only "user interfaces" are used.

It is respectfully submitted that the difference between user interfaces and user interface constructs is clear from the specification in that mention is made of the disadvantages of the use of user interface constructs, i.e., menus and toolbars, coupled with the clear recitation of the advantage of using only a user interface, i.e., mouse, to generate measurement graphics.

In view of the foregoing, it is respectfully submitted that the Examiner's rejection of claims 1-22 under the first paragraph of 35 U.S.C. §112 has been overcome and should be withdrawn.

In the Office Action claims 1-22 are also rejected under the second paragraph of 35 U.S.C. §112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner states that the term "user interface construct" is ambiguous.

In response, it is respectfully submitted that a "user interface construct" is a phrase known to those skilled in the art as a construct which interacts with a user interface to cause a computer program to perform a particular function and generally

includes menus, toolbars and control panels. For example, U.S. Patent No. 5,999,911 states that

> "[T]he control panel..is a *user interface construct* enabling the user to select among a number of high level options. The control panel includes New, Open, Reports, Help, and Exit buttons. When the user presses the New button, the system launches a flow builder to create a new workflow. The Open button enables the user to open an existing workflow. The Reports button launches a feature to generate reports from data stored during execution of a workflow or several workflows. Finally, Help and Exit are standard commands to get help and exit the program, respectively."

A user interface construct therefore is displayed on a computer screen and when a user interface interacts therewith, the program performs the function specified on the user interface construct.

In view of the foregoing, it is respectfully submitted that the phrase "user interface construct" has a known meaning in the art and is not ambiguous and therefore, the Examiner's rejection of claims 1-22 under the second paragraph of 35 U.S.C. §112 has been overcome and should be withdrawn.

PRIOR ART REJECTIONS

In the Office Action, claims 1-22 are rejected under 35 U.S.C. §103(a) as being unpatentable over USP 5,740,267 (Echerer et al.) in view of USP 6,614,452 (Cable).

The Examiner's rejection is respectfully traversed on the grounds that Echerer et al. and Cable do not disclose, teach or suggest, *inter alia*, generating measurement graphics without the activation of user interface constructs, i.e., menus, toolbars and control panels, as this phrase should be interpreted in light of the specification.

A feature of the present invention is that it is possible to generate measurement graphics without excessive mouse travel and to this end, it is not necessary to select the type of graphic to be generated but rather, the graphic to be generated can be based solely on activation of a mouse. Selection on a menu, toolbar, control panel or other user interface construct of the specific type of graphic to be generated is not required. Thus, in the invention, the generation of the measurement graphics is enabled "without activation of user interface constructs" as set forth in claim 1.

Echerer et al. disclose a menu selection including a Manual Analysis menu wherein it is necessary to select specific buttons on the menu in order to generate a measurement graphic. An example is provided of pressing a "Distance" button in order to set the program to understand that the distance between the position of the mouse at the next two clicks of the mouse button

is to be measured (see col. 13, lines 28-34). Echerer et al. thus requires activation of a user interface construct, i.e., the menu toolbar, in order to generate a graphic.

Cable discloses a graphical user interface (GUI) which allows a user to perform various operations on a medical image. The GUI includes a control panel 312 with a measurement function section 318 (see Fig. 3A). The measurement function section 318 includes a measure button 348 and a pop-up menu 350 which are activated to select a function to be performed on a region of interest (ROI) and to select the ROI to which the function is to be applied, respectively. Cable thus requires activation of a user interface construct, i.e., the toolbar in the form of the control section 312, in order to select the function to be performed by pressing the mouse buttons.

Echerer et al. and Cable therefore do not disclose, teach or suggest generating measurement graphics on a medical image without activating a user interface construct to select the type of measurement graphic to be generated. Rather, both Echerer et al. and Cable require movement of the mouse to a user interface construct, such as a toolbar, in order to select the type of graphic to be generated. The measurement techniques of Echerer et

al. and Cable therefore involve excessive mouse travel which is avoided in the present claimed invention.

In view of the foregoing, claim 1 is patentable over Echerer et al. and Cable when taken either alone under 35 U.S.C. §102 or in combination under 35 U.S.C. §103.

The other references of record do not close the gap between the present claimed invention as defined by claim 1 and Echerer et al. in view of Cable.

Therefore, claim 1 and claims 2-9 and 19-22 which are either directly or indirectly dependent on claim 1 are patentable over all of the references of record under 35 U.S.C. §102 as well as 35 U.S.C. §103.

In addition, with respect to claim 20, Cable does not disclose enabling generation of a measurement graphic "based solely on the actuation of said at least one button of said mouse when said pointer symbol is situated *on said medical image*" (emphasis added). The Examiner referred to col. 7, lines 40-60 of Cable wherein a region of interest (ROI) on the medical image is created by clicking on button 326 with a pointer. However, the pointer is not situated on the medical image when the ROI is created but rather, the pointer is situated on the create button 326 on the toolbar 312 ("the user simply clicks on button 326

with a pointer and a new ROI appears in the image measurement window"-col 7, lines 46-47 of Cable). Pressing the mouse button when the pointer is on the medical image will not perform the create function in the Cable system. Rather, the pointer must be situated on a user interface control component of the toolbar 312, i.e., the create button 326, in order to create the ROI and thus Cable does not disclose the feature of claim 20.

With respect to claim 21, Cable does not disclose enabling generation of a measurement graphic without requiring a user to define a type of graphic being generated. In rejecting claim 21 the Examiner again relied upon col. 7, lines 40-60 of Cable. In Cable, in order to create any ROI, the type of ROI to be generated must be pre-selected on the pop-up menu 327. That is, whatever graphic form is present on the pop-up menu 327 will be created when create button 326 is pressed. The presence of the pop-up menu 327 to be used in conjunction with the create button 326 inherently defines the type of graphic to be generated and thus Cable does not disclose, teach or suggest the features of claim 21.

With respect to claim 22, Cable does not disclose, teach or suggest generating a measurement graphic without movement of the pointer symbol associated with the mouse outside of the medical

image. In rejecting claim 22 the Examiner again relies on col. 7, lines 40-60 of Cable. In Cable, in order to create any ROI, the pointer must inherently move to the toolbar 312, which is outside of the medical image, in order to select the type of measurement graphic to be generated. Thus, Cable does not disclose, teach or suggest the feature of claim 22.

Claim 10 is an apparatus claim and claim 19 is a machine readable computer program claim which are patentable over the cited references for reasons, *inter alia*, set forth above in connection with claim 1. Specifically, claim 10 recites that the processor is arranged to produce the measurement graphics based on the list of measurement operations "without activation of user interface constructs". As discussed above, Echerer et al. and Cable do not disclose, teach or suggest enabling the generation or production of measurement graphics without activation of user interface constructs, e.g., solely by means of actuation of one or more buttons of a mouse or other pointing device on a medical image.

Claims 11-18 which are either directly or indirectly dependent on claim 10 are patentable over the cited references in view of their dependence on claim 10 and because the references

of record do not disclose, teach or suggest each of the limitations set forth in claims 11-18.

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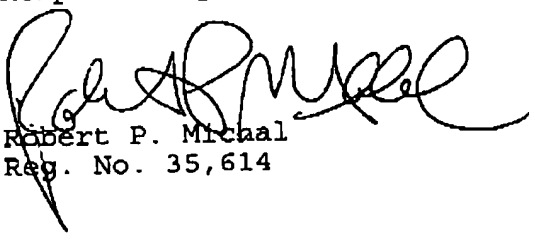
If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

Entry of this Amendment under the provisions of 37 C.F.R. §1.116, allowance of the claims, and the passing of the application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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